85-069674/12

A97 D25 E23 (E19 E37)

DE 3430-773-A

CIBA GEIGY AG 24.08.83-CH-004616 (14.03.85) C11d-07/54

Washing powder additive in speckle from - coning. photo-activator(s) esp. zinc- or aluminium phthalocyanine, water-soluble carbonate(s) and acid(s) soluble at room temp.

C85-030144 The additive contains:

(A) one or more photo-bleaching agents, (photo-activator (B) one or more water-soluble inorganic carbonates; and

(C) one or more acids which are solid at room temp.

Also claimed are washing powders contg. 0.2-50 (1-20)wt. t of the above additives.

ADVANTAGE

The speckles dissolve quickly, and are kept at the surface of the bath by the generation of CO₂ during dissolution. Stains on the material to be washed, e.g. unequal bleaching or colouration, are prevented.

COMPOSITION

The concn. of (A) is 0.005-8 (0.01-0.8)% wr.t. the wt. of the speckles.

Wt. ratio (B):(C) is 1;9 to 9:1(4:6 to 9:1). Wt. ratio (B) + (C) may be 160000:1 to 10:1.

CIBA 24.08.83 A(12-W12A, 12-W12B) D(4-C, 11-A1B, 11-D3) E(5-B3, 5-L3D, 10-B2D, 10-C2, 10-32-A, 33-D, 33-G, 33-H, 34)

The compsns. opt. contain:

(D) fillers, dispersants and/or other standard constituents of speckles and washing powders, and

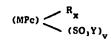
(E) one or more substances which keep the speckles at or near the surface of the washing- or soaking bath during dissolution, e.g. surfactants or water-soluble polymers, esp. anionic or nonionic surfactants.

CLAIMED PRODUCTION

The washing powder additives are prepd. by intimately mixing components (A) to (C) and opt. (D) and (E), opt. with the addn. of a non-aq. liq. or a little water and working up the mixt. obtd. by agglomeration, drying or granulation or by pressing to speckles having the desired shape.

PREFERRED MATERIALS

(A) are esp. water-soluble Zn- and/or Al phthalocyanines esp. sulpho gp-contg. Zn- and/or Al phthalocyanines, esp. having formula



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, 11-A3, 11-B1, 0-C4D, 10-C4L,

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MP_c = Zn- or Al phthalocyanine ring system: Y = H. alkali metal- or ammonium ion:

= no. 1-4;

= F, Cl (prefd.). Br or I; and

= 0-8.

(B) are (bi)carbonates of alkali(ne earth) metals or NII, . esp. Na₂CO, or NaHCO₃.

(C) can be citric-, valeric-, higher monocarboxylic-, ascorbic-. ndipic-fumaric-, glutaric-, glutamic-, succinic-, malonic-. maleic-, mandelic-, oxalic-, phthalic-, stearic-, tartaric-. malic-. glycolic- and for lactic acid, esp. citric- or

(D) can be surfactants, tripolyphosphates, NaCl, Na₂SO₄ CMC. Al silicates, nitriloacetate, ethylene diamine tetra acetate, high mol. wt. carbohydrates, polyvinyl pyrrolidone, polyncrylate, and for salts of maleic acid-acrylic acid copolymers or vinyl ether copolymers.

(E) The surfactants can be soaps, fatty alcohol sulphates olefin- or alkylbenzene sulphonates or EO adducts to fatty alcohols or alkylphenols.

EXAMPLE

1ml 10% aq. soln. of sulphonated Al phthalocyanine and 0.5 ml water were added to 75g NaIICO, and 25g citric acid. The mixt, was homogenised, dried 1 hr. at 50°C in a vacuumdrier, and pressed through a screen having mesh width 800µ. The fines having mesh width 315µ were eliminated.

The speckles were scattered on water at room temp. and generated CO, whereby they dissolved immediately and distributed in water.

In a control, using 100g Na tripolyphosphate in place of citric acid + NaHCO,, the speckles fell to the bottom of the vessel.(25pp200WADwgNo0/0)

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